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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/690,856

10/22/2003

Emeline C. Tsai

SEDN/118DIV1

6932

56015 7590 05/21/2007
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EXAMINER

SHANG, ANNAN Q

ART UNIT

PAPER NUMBER

2623

MAIL DATE

DELIVERY MODE

05/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/690,856	Applicant(s) TSAI ET AL.	
	Examiner Annan Q. Shang	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 5-9 and 15-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 10-14 and 21-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 02/27/07 have been fully considered but they are not persuasive.

With respect to claims 1-4, 10-14 and 21-33 rejected under 35 U.S.C. 102(b) as being anticipated by **Freeman et al (5,724,091)**, applicant argues that the prior art of record, Freeman "...does not disclose the features of 'determining shifts needed to be applied to timing information in a second video stream in order to generate recalculated timing information; replacing the timing information in the second video stream...'"(see page 7 of 9+ of Applicant's Remarks).

In response, Examiner disagrees. Examiner notes applicant's arguments, however, Freeman's associates time code with each picture, as well as for multiple pictures and further discloses that in order to have seamless switching the clocks of both sides (Head end and Receiver) must be synchronized, i.e., either one of the clocks must be corrected in order for each of the streams to be synchronized as disclosed in col.15, lines 21-43 and col.16, line 35-40, which meets the claimed limitations "...determining shifts needed to be applied to timing information in the second video...replacing the timing information...." Hence, applicant's arguments are not persuasive; the 102(b) rejection is proper, meets all the claim limitations, maintained as repeated below in the office action. **This office action is made final.**

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 10-14 and 21-33 are rejected under 35 U.S.C. 102(b) as being anticipated by **Freeman et al (5,724,091)**.

As to claim 1, note the **Freeman** reference figures 1-7, discloses a method for transitioning between digital video streams, the method comprising:

Serving (Microprocessor) a first video stream with a packet identifier (PID) value (fig.3, col.4, line 59-col.5, line 20, col.6, lines 23-64 and col.14, line 36+);

Determining (MP-108) shifts needed to be applied to timing information in a second video stream in order to generate recalculated timing information; replacing the timing information in the second video stream with the recalculated timing information (col.15, lines 21-43 and col.16, lines 35-40);

Transitioning (MP-108) in an immediate and smooth manner to a second video stream having the same PID value and serving the second video stream (col.14, line 36-col.16, line 1+), note that time code is associate with each picture, as well as for multiple pictures and in order to have seamless switching the clocks of both sides (Head end and Receiver) must be synchronized, i.e., either one of the clocks must be

corrected in order for each of the streams to be synchronized as disclosed in col.15, lines 21-43 and col.16, lines 35-40.

As to claims 2-3, Freeman further discloses where transitioning in an immediate and smooth manner comprises transitioning without an unsynchronized delay at a beginning of the second video stream and without an unstable period at an end of the first video stream and further comprises transitioning without an unsynchronized delay at a beginning of the second video stream and without an unstable period at the end of the first video stream (col.14, line 36-col.16, line 1+).

As to claim 10, the claimed "A method for transitioning between digital video streams..." is composed of the same structural elements that were discussed with respect to the rejection of claim 1.

As to claims 11-12, Freeman further discloses where the timing information includes decoding and presentation time stamps and includes clock reference values (col.14, line 49-col.15, line 53).

As to claims 11-12, Freeman further discloses where the method is performed at a distribution head end and at a remote hub of a distribution system (col.9, line 20-col.10, line 21 and col.14, line 49-col.15, line 53).

As to claims 21-22, Freeman further discloses where the shifts applied to timing information are adapted to a lag between the time of a transition at a server and the time of the transition at a subscriber station and where the shifts comprise differences between a program clock reference of the first video stream and a program clock

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reference of the second video stream (col.9, line 20-col.10, line 21 and col.14, line 49-col.15, line 53).

As to claims 23-29, Freeman further discloses where a first packet including recalculated timing information is associated with discontinuity indicator, where the discontinuity indicator is adapted to cause a clock reset at a subscriber station, where the first video stream has associated with a plurality of transition points, each transition point identified via a discontinuity indicator (col.14, line 21-col.16, line 1+), where the transition points are associated with respective reference frames, where the transition points comprise respective beginnings of a stripe sections of a storage drive in a storage array, where the transition points are associated with respective reference frames and where the transition points are associated with respective NULL packets (col.11, line 45-col.12, line 30, col.15, lines 21-43 and col.16, lines 35-40).

As to claims 30-33, Freeman further discloses receiving a signal to transition from the video to the second video stream and removing packets of the first video and transmitting picture repeat packets in substitute, where the picture repeat packets comprise zero motion vectors, further comprises after receiving the signal to transition and before removing packets, transmitting packets of the first video stream until a first packet comprising a reference picture, receiving a signal to transition from the first video stream to the second video stream and removing packets of the first video stream and inserting NUL packets in substitute (col.11, line 45-col.12, line 30, col.15, lines 21-43 and col.16, lines 35-40).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Radha et al (6,806,909) discloses seamless splicing of MPEG-2 multimedia data streams

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

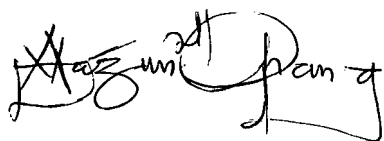
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Annan Q. Shang** whose telephone number is **571-272-7355**. The examiner can normally be reached on **700am-400pm**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Christopher S. Kelley** can be reached on **571-272-7331**. The fax phone

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number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the **Electronic Business Center (EBC) at 866-217-9197 (toll-free)**. If you would like assistance from a **USPTO Customer Service Representative** or access to the automated information system, call **800-786-9199 (IN USA OR CANADA) or 571-272-1000**.

A handwritten signature in black ink, appearing to read "Annan Q. Shang". The signature is stylized with a large, looped "S" and "H" at the end.

Annan Q. Shang